

Serial No. 10/070,084
Docket No. PU3517USw
Reply to Office Action of February 17, 2004

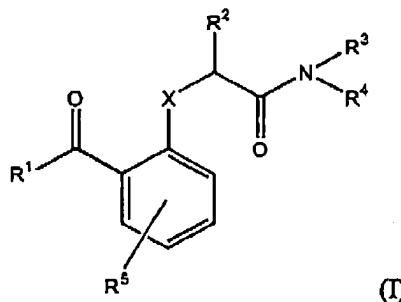
Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (canceled)

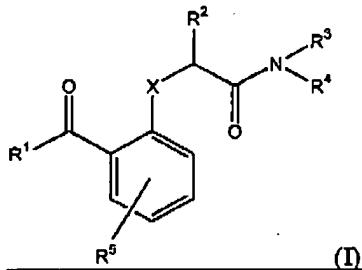
Claim 2 (currently amended) A compound of formula (I)



wherein X is O; R¹ is C₆₋₁₄aryl substituted with one or more substituents selected from the group consisting of halogen, -CF₃, C₁₋₈alkyl, -CN, -SR⁶, -S(O)₂R⁶; or heterocycle, optionally substituted with one or more substituents selected from the group consisting of C₁₋₈alkyl, -CN, and C₆₋₁₄arylC₁₋₈alkyl; R⁶ is C₁₋₈alkyl, optionally substituted with halogen; R⁷ is C₁₋₈alkyl optionally substituted with one or more substituents selected from the group consisting of hydroxy, -NH₂, or heterocycle; R² is hydrogen; R³ is hydrogen or C₁₋₈alkyl; R⁴ is heterocycle, optionally substituted with one or more substituents selected from the group consisting of oxo, halogen, C₁₋₈alkyl, -OR¹¹ and -SR¹⁰N(R¹⁰)₂, S(O)₂NR⁸R⁹; or C₆₋₁₄aryl substituted with one or more substituents selected from the group consisting of hydroxy, halogen, -CF₃, C₁₋₈alkyl, hydroxyC₁₋₈alkyl, -CN, -NO₂, -C(O)NH₂, -S(O)R⁷, -S(O)₂R⁷, -S(O)₂NR⁸R⁹, -OR¹¹, -C(O)NR¹¹, -C(O)OR¹¹, -NR¹¹, -NC(O)R¹¹, and heterocycle which may be optionally substituted with one or more substituents selected from the group consisting of oxo, C₁₋₈alkyl and heterocycleC₁₋₈alkyl; R⁸ and R⁹ are the same or different and are selected from the group consisting of hydrogen, C₁₋₈alkyl, C₁₋₈alkylheterocycle, heterocycle, and C₃₋₆cycloalkyl; R¹⁰ is C₁₋₈alkyl; R¹¹ is C₁₋₈alkyl, optionally substituted with -SO₂NR⁸R⁹; and R⁵ is halogen or -NO₂; or a pharmaceutically acceptable derivative salt thereof.

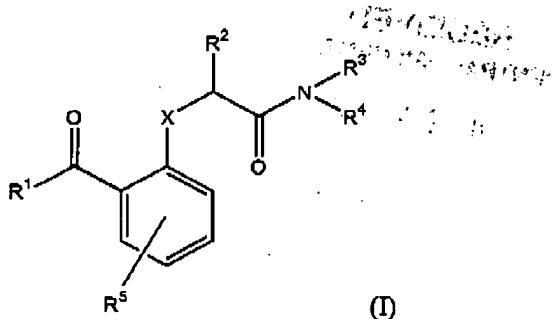
Serial No. 10/070,084
 Docket No. PU3517USw
 Reply to Office Action of February 17, 2004

Claim 3 (currently amended) A compound of formula (I)



according to claim 2 wherein X is O; R¹ is C₆₋₁₄aryl substituted with one or more substituents selected from the group consisting of halogen, -CF₃, C₁₋₈alkyl, and -CN; R² and R³ are hydrogen; R⁴ is C₆₋₁₄aryl substituted with one or more substituents selected from the group consisting of halogen, C₁₋₈alkyl, -CN, -NO₂, -S(O)R⁷, -S(O)₂R⁷, -NS(O)₂R⁷, wherein R⁷ is -NH₂; and R⁵ is halogen; or a pharmaceutically acceptable derivative salt thereof.

Claim 4 (currently amended) A compound of formula (I)

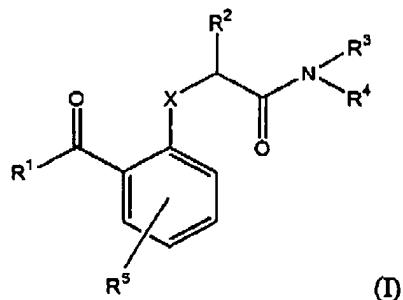


wherein X is O; R¹ is C₆₋₁₄aryl which may be optionally substituted with one or more substituents selected from the group consisting of halogen, C₁₋₈alkyl, CF₃, -CN; R² and R³ are hydrogen; R⁴ is C₆₋₁₄aryl substituted with one or more substituents selected from the group consisting of C₁₋₈alkyl and S(O)₂NR⁸R⁹, wherein R⁸ and R⁹ are independently selected from the group consisting of hydrogen, C₃₋₆C₃₋₆cycloalkyl, C₁₋₈alkyl optionally substituted with one or more substituents selected from the group consisting of oxo, heterocycle, CN and C₆₋₁₄aryl optionally substituted with alkoxy, C₁₋₈alkylamino, C₁₋₈alkylheterocycle, heterocycle, heterocycleC₁₋₈alkyl, C₃₋₆cycloalkylC₁₋₈alkyl, and C₃₋₆cycloalkyl; R⁵ is hydrogen, halogen, C₁₋₈alkyl, or C₁₋₈alkoxy.

Serial No. 10/070,084
 Docket No. PU3517USw
 Reply to Office Action of February 17, 2004

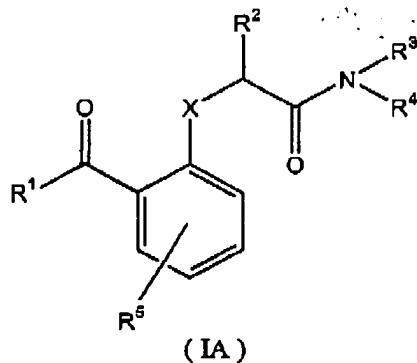
alkyl, -NO₂, -NH₂, C₁₋₈alkylamino, CF₃, or alkoxy; or a pharmaceutically acceptable salt thereof.

Claim 5 (currently amended) A compound of formula (I)



wherein X is O, R¹ is C₆₋₁₄aryl substituted with one or more substituents selected from the group consisting of halogen, -CF₃, C₁₋₈alkyl, and -CN; R² and R³ are hydrogen; R⁴ is C₆₋₁₄aryl substituted with one or more substituents selected from the group consisting of halogen, C₁₋₈alkyl, -CN, -NO₂, -S(O)R⁷, -S(O)₂R⁷, -NS(O)₂R⁷, wherein R⁷ is -NH₂; and R⁵ is halogen; or a pharmaceutically acceptable derivative salt thereof provided that when X is C, R² and R³ are hydrogen; R⁴ is C₆₋₁₄aryl substituted with halogen, CN, C₁₋₈alkyl, -NO₂; and R⁵ is halogen, then R⁴ cannot be C₆₋₁₄aryl substituted with alkoxy.

Claim 6 (currently amended) A compound of formula (IA)



wherein:

Serial No. 10/070,084
Docket No. PU3517USw
Reply to Office Action of February 17, 2004

X is C, O, or N;

R¹ is C₆₋₁₄aryl which may be optionally substituted with one or more substituents selected from the group consisting of halogen, -CF₃, C₁₋₈alkyl, C₁₋₈alkylamino, alkoxy, C₃₋₆cycloalkylC₂₋₆alkenyl, C₆₋₁₄arylC₂₋₆alkenyl, -CN, -NO₂, -NH₂, -SR⁶, -S(O)₂R⁶, -S(O)R⁷, -S(O)₂R⁷, -C(O)R⁷, C₂₋₆alkenyl which may be optionally substituted with a substituent selected from the group consisting of hydroxy, halogen, aryl, and heterocycle and C₂₋₆alkynyl which may be optionally substituted with a substituent selected from the group consisting of hydroxy, halogen, aryl, C₃₋₆cycloalkyl, and heterocycle;

R⁶ is C₁₋₈alkyl optionally substituted with one or more substituents selected from the group consisting of hydroxyl, halogen, -CF₃, aryl, and heterocycle;

R⁷ is C₁₋₈alkyl, optionally substituted with one or more substituents selected from the group consisting of hydroxy, halogen, aryl, C₃₋₆cycloalkyl and heterocycle; -NH₂; or heterocycle;

R² is hydrogen, halogen, or C₁₋₈alkyl;

R³ is hydrogen;

R⁴ is C₆₋₁₄aryl substituted with one or more substituents selected from the group consisting of hydroxy, halogen, -CF₃, C₁₋₈alkyl, hydroxyC₁₋₈alkyl, -CN, -NO₂, C₁₋₈alkylamino, heterocycleC₁₋₈alkyl, -C(O)NH₂, -S(O)R⁷, -S(O)₂R⁷, -C(O)R⁷, -NS(O)₂R⁷, -S(O)₂NR⁸R⁹, -S(O)₂NHR¹¹, -S(O)₂R¹¹, -S(O)₂NR⁷COR¹¹, -S(O)₂NHCOR¹¹, -S(O)₂[COR¹¹]_n wherein n is 1, 2, or 3, -OR¹¹, -OR¹¹OR¹¹, -C(O)R¹¹, -C(O)NR¹¹, -C(O)OR¹¹, -NR¹¹, -NC(O)R¹¹, heterocycleC₂₋₆alkenyl, heterocycle which may be optionally substituted with one or more substituents selected from the group consisting of oxo, C₁₋₈alkyl, and C(O)OR¹¹, and C₁₋₈alkyl which may be optionally substituted with one or more substituents selected from the group consisting of -CN and heterocycle, optionally substituted with -C(O)R¹¹;

R⁸ and R⁹ are independently selected from the group consisting of hydrogen, C₃₋₆cycloalkyl, C₁₋₈alkyl optionally substituted with one or more substituents selected from the group consisting of oxo, heterocycle, CN and C₆₋₁₄aryl optionally substituted with alkoxy, C₁₋₈alkylamino, C₁₋₈alkylheterocycle, heterocycle, heterocycleC₁₋₈alkyl, C₃₋₆cycloalkylC₁₋₈alkyl, and C₃₋₆cycloalkyl;

R¹¹ is C₁₋₈alkyl, optionally substituted with one or more substituents selected from the group consisting of hydrogen, hydroxy, halogen, C₁₋₈alkyl, C₃₋₆cycloalkyl, alkoxy, -S(O)₂NR⁸R⁹, NCONH₂, and heterocycle optionally substituted with one or more

Serial No. 10/070,084
Docket No. PU3517USw
Reply to Office Action of February 17, 2004

substituents selected from the group consisting of oxo, hydroxy, and C₁₋₈alkyl; heterocycle optionally substituted with heterocycleC₁₋₈alkyl; or C₆₋₁₄aryl optionally substituted with alkoxy;

R⁵ is hydrogen, halogen, C₁₋₈alkyl, -NO₂, -NH₂, C₁₋₈alkylamino, CF₃, or alkoxy; or a pharmaceutically acceptable derivative salt thereof provided that

a) when X is C; R² is hydrogen, halogen or C₁₋₈alkyl; R³ is hydrogen; R⁴ is C₆₋₁₄aryl substituted with halogen, hydroxy, or C₁₋₈alkyl; R⁵ is hydrogen, halogen, C₁₋₈alkyl, or alkoxy; then R¹ cannot be C₁₋₈alkyl, C₃₋₆cycloalkyl, or C₆₋₁₄aryl substituted with halogen, C₁₋₈alkyl, or C₆₋₁₄arylC₂₋₆alkenyl; and

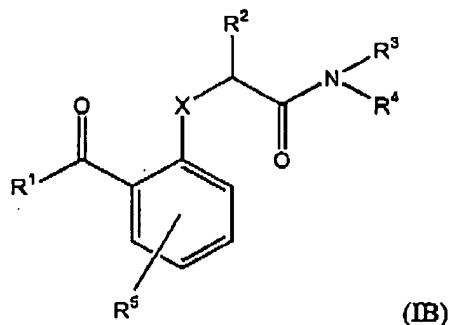
(b) when X is C; R² is hydrogen or alkyl; R³ is hydrogen; R⁴ is C₆₋₁₄aryl substituted with halogen, CN, alkyl, or -NO₂; R⁵ is hydrogen, -NO₂, or NH₂, then R¹ cannot be C₁₀₋₁₄aryl substituted with alkoxy.

Claim 7 (currently amended) A compound of formula (IA) according to claim 6 wherein X is O; R¹ is C₆₋₁₄aryl substituted with one or more substituents selected from the group consisting of halogen, -CF₃, C₁₋₈alkyl, -CN, C₂₋₆alkenyl which may be optionally substituted with a substituent selected from the group consisting of hydroxy, halogen, aryl, and heterocycle and C₂₋₆alkynyl which may be optionally substituted with a substituent selected from the group consisting of hydroxy, halogen, aryl, C₃₋₆cycloalkyl, and heterocycle; R² and R³ are hydrogen; R⁴ is C₆₋₁₄aryl substituted with one or more substituents selected from the group consisting of C₁₋₈alkyl, -S(O)₂R⁷, -S(O)₂NR⁸R⁹, -OR¹¹, heterocycleC₂₋₆alkenyl, and heterocycle which may be optionally substituted with oxo; and R⁵ is halogen; or a pharmaceutically acceptable derivative salt thereof.

Claim 8 (canceled)

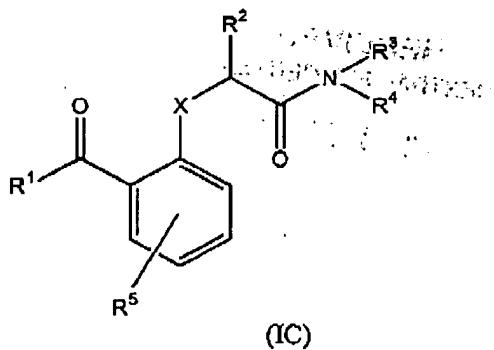
Claim 9 (currently amended) A compound of formula (IB)

Serial No. 10/070,084
 Docket No. PU3517USw
 Reply to Office Action of February 17, 2004



wherein X is O; R¹ is C₆₋₁₄aryl substituted with one or more substituents selected from the group consisting of halogen, -CF₃, and -CN; R² is hydrogen; R³ is hydrogen; R⁴ is heterocycle; and R⁵ is halogen; or a pharmaceutically acceptable derivative salt thereof.

Claim 10 (currently amended) A compound of formula (JC)



wherein:

X is C, O, or N;

R¹ is heterocycle, optionally substituted with one or more substituents selected from the group consisting of C₁₋₈alkyl, halogen, -CN, C₆₋₁₄arylC₁₋₈alkyl and heterocycle;

R² is hydrogen, halogen, or C₁₋₈alkyl;

R³ is hydrogen;

R⁴ is C₆₋₁₄aryl substituted with one or more substituents selected from the group consisting of hydroxy, halogen, -CF₃, C₁₋₈alkyl, hydroxyC₁₋₈alkyl, -CN, -NO₂, C₁₋₈alkylamino, heterocycleC₁₋₈alkyl, -C(O)NH₂, -S(O)R⁷, -S(O)₂R⁷, -C(O)R⁷,

Serial No. 10/070,084
Docket No. PU3517USw
Reply to Office Action of February 17, 2004

-NS(O)₂R⁷, -S(O)₂NR⁸R⁹, -S(O)₂NHR¹¹, -S(O)₂R¹¹, -S(O)₂NR⁷COR¹¹, -S(O)₂NHCOR¹¹, -S(O)₂[COR¹¹]_n wherein n is 1, 2, or 3, -OR¹¹, -OR¹¹OR¹¹, -C(O)R¹¹, -C(O)NR¹¹, -C(O)OR¹¹, -NR¹¹, -NC(O)R¹¹, heterocycleC₂₋₆alkenyl, heterocycle which may be optionally substituted with one or more substituents selected from the group consisting of oxo, C₁₋₈alkyl, and C(O)OR¹¹, and C₁₋₈alkyl which may be optionally substituted with one or more substituents selected from the group consisting of -CN and heterocycle, optionally substituted with -C(O)R¹¹;

R⁷ is C₁₋₈ alkyl, optionally substituted with one or more substituents selected from the group consisting of hydroxy, halogen, aryl, C₃₋₆cycloalkyl and heterocycle; -NH₂; or heterocycle;

R⁸ and R⁹ are independently selected from the group consisting of hydrogen, C₃₋₆cycloalkyl, C₁₋₈alkyl optionally substituted with one or more substituents selected from the group consisting of oxo, heterocycle, CN and C₆₋₁₄aryl optionally substituted with alkoxy, C₁₋₈alkylamino, C₁₋₈alkylheterocycle, heterocycle, heterocycleC₁₋₈alkyl, C₃₋₆cycloalkylC₁₋₈alkyl, and C₃₋₆cycloalkyl;

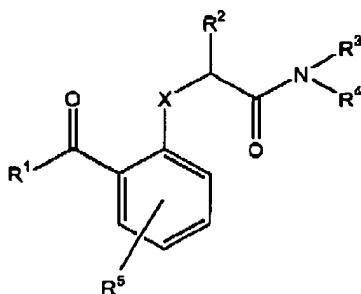
R¹¹ is C₁₋₈alkyl, optionally substituted with one or more substituents selected from the group consisting of hydrogen, C₁₋₈alkyl, alkoxy, -S(O)₂NR⁸R⁹, -NR⁸R⁹, and heterocycle, optionally substituted with one or more substituents selected from the group consisting of oxo and C₁₋₈alkyl;

R⁵ is hydrogen, halogen, C₁₋₈alkyl, -NO₂, -NH₂, C₁₋₈alkylamino, CF₃, or alkoxy, or a pharmaceutically acceptable derivative salt thereof.

Claim 11 (currently amended) A compound of formula (IC) according to claim 10 wherein X is O; R¹ is heterocycle, optionally substituted with -CN; R² and R³ are hydrogen; R⁴ is C₆₋₁₄aryl substituted with one or more substituents selected from the group consisting of C₁₋₈alkyl, -S(O)₂NR⁸R⁹, -OR¹¹, and heterocycle which may be optionally substituted with one or more substituents selected from the group consisting of oxo; and R⁵ is halogen; or a pharmaceutically acceptable derivative salt thereof.

Claim 12 (currently amended) A compound of formula (ID):

Serial No. 10/070,084
 Docket No. PU3517USw
 Reply to Office Action of February 17, 2004



(ID)

wherein:

X is C, O, or N;

R¹ is heterocycle, optionally substituted with one or more substituents selected from the group consisting of C₁₋₈alkyl, halogen, -CN, C₆₋₁₄arylC₁₋₈alkyl and heterocycle;

R² is hydrogen, halogen, or C₁₋₈alkyl;

R³ and R⁴ are independently hydrogen; hydroxy; heterocycle optionally substituted with one or more substituents selected from the group consisting of oxo, hydroxy, hydroxyC₁₋₈alkyl, halogen, C₁₋₈alkyl, -OR¹¹, -S(O)₂NR⁸R⁹, and -SR¹⁰N(R¹⁰)₂; or R³ and R⁴ together with the nitrogen atom to which they are attached form a heterocycle which may be optionally substituted with C₆₋₁₄aryl, which may be optionally substituted with one or more substituents selected from the group consisting of C₁₋₈alkyl and -NO₂; provided that R³ and R⁴ cannot both be hydrogen or hydroxy;

R⁸ and R⁹ are independently selected from the group consisting of hydrogen, C₃₋₆cycloalkyl, C₁₋₈alkyl optionally substituted with one or more substituents selected from the group consisting of oxo, heterocycle, CN and C₆₋₁₄aryl optionally substituted with alkoxy, C₁₋₈alkylamino, C₁₋₈alkylheterocycle, heterocycle, heterocycleC₁₋₈alkyl, C₃₋₆cycloalkylC₁₋₈alkyl, and C₃₋₆cycloalkyl;

R¹⁰ is C₁₋₈alkyl;

R¹¹ is C₁₋₈alkyl, optionally substituted with one or more substituents selected from the group consisting of hydrogen, C₁₋₈alkyl, -S(O)₂NR⁸R⁹, and heterocycle optionally substituted with one or more substituents selected from the group consisting of oxo, and C₁₋₈alkyl;

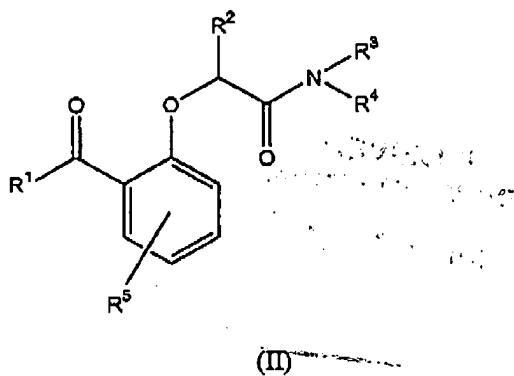
Serial No. 10/070,084
 Docket No. PU3517USw
 Reply to Office Action of February 17, 2004

R^5 is hydrogen, halogen, C_{1-8} alkyl, $-NO_2$, $-NH_2$, C_{1-8} alkylamino, CF_3 , or alkoxy; or a pharmaceutically acceptable derivative salt thereof.

Claim 13 (currently amended) A compound of formula (ID) according to claim 12 wherein X is O; R^1 is heterocycle; R^2 and R^3 are hydrogen; R^4 is heterocycle; and R^5 is halogen; or a pharmaceutically acceptable derivative salt thereof.

Claim 14 (previously presented) A compound according to claim 6 wherein X is O.

Claim 15 (withdrawn) A compound of formula (II):



wherein:

R^1 is C_{6-14} aryl which may be optionally substituted with one or more substituents selected from the group consisting of halogen, $-CF_3$, C_{1-8} alkyl, C_{1-8} alkylamino, alkoxy, C_{3-6} cycloalkyl C_{2-6} alkenyl, C_{6-14} aryl C_{2-6} alkenyl, $-CN$, $-NO_2$, $-NH_2$, $-SR^6$, $-S(O)_2R^6$, $-S(O)R^7$, $-S(O)_2R^7$, $-C(O)R^7$, C_{2-6} alkenyl which may be optionally substituted with a substituent selected from the group consisting of hydroxy, halogen, aryl, and heterocycle, and C_{2-6} alkynyl which may be optionally substituted with a substituent selected from the group consisting of hydroxy, halogen, aryl, C_{3-6} cycloalkyl, and heterocycle;

R^6 is C_{1-8} alkyl, optionally substituted with one or more substituents selected from the group consisting of hydroxy, halogen, $-CF_3$, aryl, and heterocycle;

Serial No. 10/070,084
 Docket No. PU3517USw
 Reply to Office Action of February 17, 2004

R^7 is C_{1-8} alkyl, optionally substituted with one or more substituents selected from the group consisting of hydroxy, halogen, aryl, C_{3-6} cycloalkyl and heterocycle; $-NH_2$; or heterocycle;

R^2 is hydrogen, halogen, or C_{1-8} alkyl;

R^3 and R^4 form a heterocycle which may be optionally substituted with C_{6-14} aryl, which may be optionally substituted with one or more substituents selected from the group consisting of C_{1-8} alkyl and $-NO_2$;

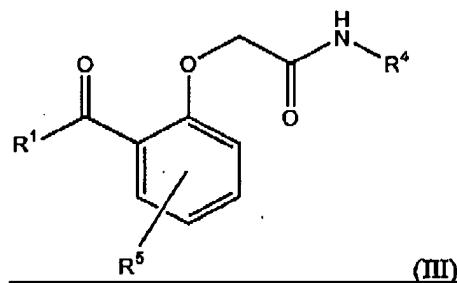
provided that when R^1 is unsubstituted C_{6-14} aryl, then R^3R^4 is substituted.

R^5 is hydrogen, halogen, C_{1-8} alkyl, $-NO_2$, $-NH_2$, C_{1-8} alkylamino, CF_3 , or alkoxy; or a pharmaceutically acceptable derivative thereof.

Claim 16 (withdrawn) A compound of formula (II) according to claim 15 wherein R^1 is C_{6-14} aryl which is substituted with halogen; R^2 is hydrogen; R^3 and R^4 form a heterocycle which may be optionally substituted with C_{6-14} aryl, which may be optionally substituted with one or more substituents selected from the group consisting of C_{1-8} alkyl and $-NO_2$; and R^5 is halogen; or a pharmaceutically acceptable derivative thereof.

Claim 17 (canceled)

Claim 18 (currently amended) A compound of formula (III)



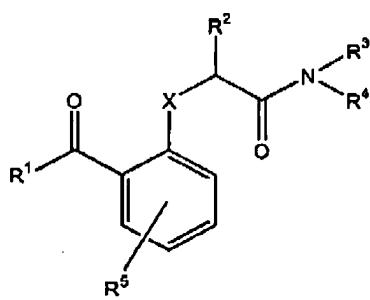
according to claim 17 wherein R^1 is C_{6-14} aryl substituted with one or more substituents selected from the group consisting of halogen, $-CF_3$, C_{1-8} alkyl, $-CN$, $-SR^6$, $-S(O)_2R^6$; or heterocycle, optionally substituted with one or more substituents selected from the group

Serial No. 10/070,084
 Docket No. PU3517USw
 Reply to Office Action of February 17, 2004

consisting of C_{1-8} alkyl, -CN, and C_{6-14} aryl C_{1-8} alkyl; R^6 is C_{1-8} alkyl, optionally substituted with halogen; R^7 is C_{1-8} alkyl, optionally substituted with one or more substituents selected from the group consisting of hydroxy, -NH₂, or heterocycle; R^4 is heterocycle, optionally substituted with one or more substituents selected from the group consisting of oxo, halogen, C_{1-8} alkyl, -OR¹¹ and -SR¹⁰(R¹⁰)₂; or C_{6-14} aryl substituted with one or more substituents selected from the group consisting of hydroxy, -CF₃, C_{1-8} alkyl, hydroxy C_{1-8} alkyl, -CN, -NO₂, -C(O)NH₂, -S(O)₂R⁷, -S(O)₂NR⁸R⁹, -OR¹¹, -C(O)NR¹¹, -C(O)OR¹¹, -NR¹¹, -NC(O)R¹¹, heterocycle which may be optionally substituted with one or more substituents selected from the group consisting of oxo and C_{1-8} alkyl; R^8 and R^9 are the same or different and are selected from the group consisting of hydrogen, C_{1-8} alkyl, C_{1-8} alkylheterocycle, heterocycle, and C_{3-6} cycloalkyl; R^{10} is C_{1-8} alkyl; R^{11} is C_{1-8} alkyl, optionally substituted with -S(O)₂NR⁸R⁹; and R^5 is halogen or -NO₂; or a pharmaceutically acceptable derivative salt thereof.

Claim 19 (currently amended) A compound of formula (III) according to claim 17 18 wherein R^1 is C_{6-14} aryl substituted with one or more substituents selected from the group consisting of halogen, -CF₃, C_{1-8} alkyl, and -CN; R^4 is C_{6-14} aryl substituted with one or more substituents selected from the group consisting of halogen, C_{1-8} alkyl, -CN, -NO₂, -S(O)R⁷, -S(O)₂R⁷, -NS(O)₂R⁷, wherein R^7 is -NH₂; and R^5 is halogen; or a pharmaceutically acceptable derivative salt thereof.

Claim 20 (currently amended) A compound according to claim 4 of formula (I)



wherein:

X is O:

R^1 is phenyl which is substituted in the *meta* position with one or more substituents selected from the group consisting of halogen, -CF₃, C_{1-8} alkyl, C_{1-8} alkylamino, alkoxy, C_{1-8}

Serial No. 10/070,084
Docket No. PU3517USw
Reply to Office Action of February 17, 2004

ϵ cycloalkylC₂₋₆alkenyl, C₆₋₁₄arylC₂₋₆alkenyl, -CN, -NO₂, -NH₂, -SR⁶, -S(O)₂R⁶, -S(O)R⁷, -S(O)₂R⁷, -C(O)R⁷, C₂₋₆alkenyl which may be optionally substituted with a substituent selected from the group consisting of hydroxy, halogen, aryl, and heterocycle, and C₂₋₆alkynyl which may be optionally substituted with a substituent selected from the group consisting of hydroxy, halogen, aryl, C₃₋₆cycloalkyl, and heterocycle;

R² is hydrogen;

R³ is hydrogen;

R⁴ is phenyl substituted in the *ortho* position with a substituent selected from the group consisting of hydroxy, halogen, -CF₃, or C₁₋₈alkyl and substituted at the *para* position with a substituent selected from the group consisting of hydroxy, halogen, -CF₃, C₁₋₈alkyl, hydroxyC₁₋₈alkyl, -CN, -NO₂, C₁₋₈alkylamino, heterocycleC₁₋₈alkyl, -C(O)NH₂, -S(O)R⁷, -S(O)₂R⁷, -C(O)R⁷, -NS(O)₂R⁷, -S(O)₂NR⁸R⁹, -S(O)₂NHR¹¹, -SO₂R¹¹, -OR¹¹, -C(O)R¹¹, -C(O)NR¹¹, -C(O)OR¹¹, -NR¹¹, -NC(O)R¹¹, heterocycleC₂₋₆alkenyl, heterocycle which may be optionally substituted with one or more substituents selected from the group consisting of oxo, C₁₋₈alkyl, and C(O)OR¹¹, and C₁₋₈alkyl which may be optionally substituted with one or more substituents selected from the group consisting of -CN and heterocycle, optionally substituted with -C(O)R¹¹;

R⁵ is a substituent in the *para* position relative to X and is selected from the group consisting of halogen, C₁₋₈alkyl, -NO₂, -NH₂, C₁₋₈alkylamino, CF₃, or alkoxy;

R⁶ is C₁₋₈alkyl, optionally substituted with one or more substituents selected from the group consisting of hydroxy, halogen, -CF₃, aryl, and heterocycle;

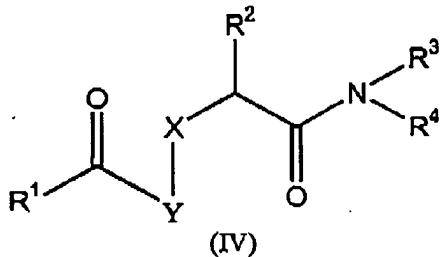
R⁷ is C₁₋₈alkyl, optionally substituted with one or more substituents selected from the group consisting of hydroxy, halogen, aryl, C₃₋₆cycloalkyl and heterocycle; -NH₂; or heterocycle;

R⁸ and R⁹ are independently selected from the group consisting of hydrogen; C₁₋₆cycloalkyl; C₁₋₈alkyl optionally substituted with one or more substituents selected from the group consisting of oxo, heterocycle, CN and C₆₋₁₄aryl optionally substituted with alkoxy, C₁₋₈alkylamino, C₁₋₈alkylheterocycle, heterocycle, heterocycleC₁₋₈alkyl, C₃₋₆cycloalkylC₁₋₈alkyl, and C₃₋₆cycloalkyl; or -C(O)NH₂;

R¹¹ is C₁₋₈alkyl, optionally substituted with one or more substituents selected from the group consisting of hydrogen, C₁₋₈alkyl, -S(O)₂NR⁸R⁹, -NR⁸R⁹, and heterocycle, optionally substituted with one or more substituents selected from the group consisting of oxo and C₁₋₈alkyl; or a pharmaceutically acceptable derivative salt thereof.

Serial No. 10/070,084
 Docket No. PU3517USw
 Reply to Office Action of February 17, 2004

Claim 21 (withdrawn) A compound of formula (IV)



wherein:

X is C, O, or N;

Y is heterocycle optionally substituted with one or more substituents selected from the group consisting of halogen, C₁₋₈alkyl, -NO₂, -NH₂, C₁₋₈alkylamino, -CF₃, or alkoxy;

R¹ is C₁₋₈alkyl; C₃₋₆cycloalkyl; C₆₋₁₄aryl which may be optionally substituted with one or more substituents selected from the group consisting of halogen, -CF₃, C₁₋₈alkyl, C₁₋₈alkylamino, C₃₋₆cycloalkylC₂₋₆alkenyl, C₆₋₁₄arylC₂₋₆alkenyl, -CN, -NO₂, -NH₂, -SR⁶, -S(O)₂R⁶, -S(O)R⁷, -S(O)₂R⁷, -C(O)R⁷, C₂₋₆alkenyl which may be optionally substituted with a substituent selected from the group consisting of hydroxy, halogen, aryl, and heterocycle, and C₂₋₆alkynyl which may be optionally substituted with a substituent selected from the group consisting of hydroxy, halogen, aryl; C₃₋₆cycloalkyl, and heterocycle; or heterocycle, optionally substituted with one or more substituents selected from the group consisting of C₁₋₈alkyl, -CN, C₆₋₁₄arylC₁₋₈alkyl and heterocycle;

R⁶ is C₁₋₈alkyl, optionally substituted with one or more substituents selected from the group consisting of hydroxy, halogen, -CF₃, aryl, and heterocycle;

R⁷ is C₁₋₈alkyl, optionally substituted with one or more substituents selected from the group consisting of hydroxy, halogen, aryl, C₃₋₆cycloalkyl and heterocycle; -NH₂; or heterocycle;

R² is hydrogen, halogen, or C₁₋₈alkyl;

R³ and R⁴ are independently hydrogen; hydroxy; heterocycle, optionally substituted with one or more substituents selected from the group consisting of oxo, hydroxy, hydroxyC₁₋₈alkyl, halogen, C₁₋₈alkyl, OR¹¹ and -SR¹⁰N(R¹⁰)₂; or C₆₋₁₄aryl substituted with one or more substituents selected from the group consisting of hydroxy, halogen, -CF₃, C₁₋₈alkyl, hydroxyC₁₋₈alkyl, -CN, -NO₂, C₁₋₈alkylamino, heterocycleC₁₋₈alkyl, -C(O)NH₂, -S(O)R⁷, -

Serial No. 10/070,084
Docket No. PU3517USw
Reply to Office Action of February 17, 2004

$S(O)_2R^7$, $-C(O)R^7$, $-NSO_2R^7$, $-S(O)_2NR^8R^9$, $-OR^{11}$, $-C(O)R^{11}$, $-C(O)NR^{11}$, $-C(O)OR^{11}$, $-NR^{11}$, $-NC(O)R^{11}$, heterocycleC₂₋₆alkenyl, heterocycle which may be optionally substituted with one or more substituents selected from the group consisting of oxo, C₁₋₈alkyl, and C(O)OR¹¹, and C₁₋₈alkyl which may be optionally substituted with one or more substituents selected from the group consisting of -CN and heterocycle, optionally substituted with -C(O)R¹¹; provided that R³ and R⁴ cannot both be hydrogen or hydroxy;

R⁸ and R⁹ are independently selected from the group consisting of hydrogen, C₁₋₈alkyl, C₁₋₈alkylamino, C₁₋₈alkylheterocycle, heterocycle, and C₃₋₆cycloalkyl;

R¹⁰ is C₁₋₈alkyl;

R¹¹ is C₁₋₈alkyl, optionally substituted with one or more substituents selected from the group consisting of hydrogen, C₁₋₈alkyl, -SO₂NR⁸R⁹, and heterocycle, optionally substituted with one or more substituents selected from the group consisting of oxo and C₁₋₈alkyl;

R⁵ is hydrogen, halogen, C₁₋₈alkyl, -NO₂, -NH₂, C₁₋₈alkylamino, CF₃, or alkoxy, or a pharmaceutically acceptable derivative thereof.

Claim 22 (withdrawn) A compound of formula (IV) according to claim 21 wherein Y is a heterocycle substituted with one or more substituents selected from the group consisting of halogen, C₁₋₈alkyl, -NO₂, -NH₂, C₁₋₈alkylamino, -CF₃, or alkoxy; or a pharmaceutically acceptable derivative thereof. More preferred compounds of formula (IV) are compounds wherein X is O. Most preferred compounds of formula (IV) are those wherein X is O and Y is a heterocycle substituted with one or more substituents selected from the group consisting of halogen, C₁₋₈alkyl, -NO₂, -NH₂, C₁₋₈alkylamino, -CF₃, or alkoxy, or a pharmaceutically acceptable derivative salt thereof.

Claim 23 (currently amended) A compound selected from the group consisting of:

2-[2-(1-benzothiophen-2-ylcarbonyl)-4-chlorophenoxy]-N-phenylacetamide;

2-(2-benzoyl-4-chlorophenoxy)-N-[4-(1H-imidazol-1-yl)phenyl]acetamide;

2-[4-chloro-2-(2-thienylcarbonyl)phenoxy]-N-[2-methyl-4-(1-oxo-1 λ -4-,4-thiazinan-4-yl)phenyl]acetamide;

2-(2-benzoyl-4-chlorophenoxy)-N-[4-(1H-1,2,4-triazol-1-yl)phenyl]acetamide;

Serial No. 10/070,084
Docket No. PU3517USw
Reply to Office Action of February 17, 2004

2-(2-benzoyl-4-chlorophenoxy)-N-[4-(4-morpholinyl)phenyl]acetamide;
N-[4-(aminosulfonyl)phenyl]-2-(2-benzoyl-4-chlorophenoxy)acetamide;
2-(2-benzoyl-4-chlorophenoxy)-N-[4-[(1,3-thiazol-2-ylamino)sulfonyl]phenyl]acetamide;
2-(2-benzoyl-4-chlorophenoxy)-N-[4-(4-methyl-1-piperazinyl)phenyl]acetamide;
2-(2-benzoyl-4-chlorophenoxy)-N-[4-(hydroxymethyl)phenyl]acetamide;
2-(2-benzoyl-4-chlorophenoxy)-N-[4-[(methylamino)sulfonyl]phenyl]acetamide;
2-(2-benzoyl-4-chlorophenoxy)-N-[4-(1-oxo-1lambda~4-,4-thiazinan-4-yl)phenyl]acetamide;
2-(2-benzoyl-4-chlorophenoxy)-N-[4-(1,1-dioxo-1lambda~6~,4-thiazinan-4-yl)phenyl]acetamide;
2-(2-benzoyl-4-chlorophenoxy)-N-[2-methyl-4-(4-morpholinyl)phenyl]acetamide;
2-(2-benzoyl-4-chlorophenoxy)-N-[4-[3-(dimethylamino)propoxy]-2-methylphenyl]acetamide;
2-(2-benzoyl-4-chlorophenoxy)-N-[4-(1-hydroxyethyl)phenyl]acetamide;
2-(2-benzoyl-4-chlorophenoxy)-N-[4-(1-hydroxyethyl)phenyl]acetamide;
2-(2-benzoyl-4-chlorophenoxy)-N-[2-methyl-4-(1-oxo-1lambda~4-,4-thiazinan-4-yl)phenyl]acetamide;
2-(2-benzoyl-4-chlorophenoxy)-N-[2-methyl-4-[3-(1-pyrrolidinyl)propoxy]phenyl]acetamide;
2-(2-benzoyl-4-chlorophenoxy)-N-(1H-indazol-5-yl)acetamide;
2-(2-benzoyl-4-chlorophenoxy)-N-[2-methyl-4-[3-(4-morpholinyl)propoxy]phenyl]acetamide;
2-(2-benzoyl-4-chlorophenoxy)-N-[4-[3-(1H-imidazol-1-yl)propoxy]-2-methylphenyl]acetamide;
2-(2-benzoyl-4-chlorophenoxy)-N-(1H-indazol-6-yl)acetamide;
2-[4-chloro-2-(2-thienylcarbonyl)phenoxy]-N-(1H-indazol-5-yl)acetamide;
2-[4-chloro-2-(2-furoyl)phenoxy]-N-(1H-indazol-5-yl)acetamide;
2-[4-chloro-2-(3-thienylcarbonyl)phenoxy]-N-(1H-indazol-5-yl)acetamide;
2-[4-chloro-2-(2-thienylcarbonyl)phenoxy]-N-[2-methyl-4-[3-(4-morpholinyl)propoxy]phenyl]acetamide;

Serial No. 10/070,084
Docket No. PU3517USw
Reply to Office Action of February 17, 2004

2-[4-chloro-2-(2-thienylcarbonyl)phenoxy]-N-[4-(1-oxo-1lambda~4~,4-thiazinan-4-yl)phenyl]acetamide;

2-(2-benzoyl-4-chlorophenoxy)-N-[2-methyl-4-[3-(1-oxo-1lambda~4~,4-thiazinan-4-yl)propoxy]phenyl]acetamide;

2-[4-chloro-2-(2-furoyl)phenoxy]-N-[2-methyl-4-(1-oxo-1lambda~4~,4-thiazinan-4-yl)phenyl]acetamide;

N-[4-(aminosulfonyl)-2-methylphenyl]-2-(2-benzoyl-4-chlorophenoxy)acetamide;

N-[4-(aminosulfonyl)-2-methylphenyl]-2-[4-chloro-2-(2-thienylcarbonyl)phenoxy]acetamide;

2-[2-(1-benzofuran-2-ylcarbonyl)-4-chlorophenoxy]-N-phenylacetamide

2-[4-chloro-2-(1,3-thiazol-2-ylcarbonyl)phenoxy]-N-phenylacetamide;

N-[4-(aminosulfonyl)-2-methylphenyl]-2-[4-chloro-2-(2-furoyl)phenoxy]acetamide;

2-[4-chloro-2-(2-furoyl)phenoxy]-N-(1H-indazol-6-yl)acetamide;

2-[4-chloro-2-(3-furoyl)phenoxy]-N-[2-methyl-4-(1-oxo-1lambda~4~,4-thiazinan-4-yl)phenyl]acetamide;

2-[4-chloro-2-(3-thienylcarbonyl)phenoxy]-N-[4-(1-oxo-1lambda~4~,4-thiazinan-4-yl)phenyl]acetamide;

2-[4-chloro-2-(3-thienylcarbonyl)phenoxy]-N-[2-methyl-4-(1-oxo-1lambda~4~,4-thiazinan-4-yl)phenyl]acetamide;

2-[4-chloro-2-[(1-methyl-1H-pyrrol-2-yl)carbonyl]phenoxy]-N-phenylacetamide;

2-(4-chloro-2-[(5-(2-pyridinyl)-2-thienyl]carbonyl)phenoxy]-N-phenylacetamide;

2-[4-chloro-2-(1,3-thiazol-2-ylcarbonyl)phenoxy]-N-(1H-indazol-5-yl)acetamide;

2-[4-chloro-2-(1,3-thiazol-2-ylcarbonyl)phenoxy]-N-[2-methyl-4-(1-oxo-1lambda~4~,4-thiazinan-4-yl)phenyl]acetamide;

2-[4-chloro-2-(3-cyanobenzoyl)phenoxy]-N-[2-methyl-4-(1-oxo-1lambda~4~,4-thiazinan-4-yl)phenyl]acetamide;

2-[4-chloro-2-(3-pyridinylcarbonyl)phenoxy]-N-[2-methyl-4-(1-oxo-1lambda~4~,4-thiazinan-4-yl)phenyl]acetamide;

2-[2-(2-bromobenzoyl)-4-chlorophenoxy]-N-[2-methyl-4-(1-oxo-1lambda~4~,4-thiazinan-4-yl)phenyl]acetamide;

Serial No. 10/070,084
Docket No. PU3517USw
Reply to Office Action of February 17, 2004

2-[2-(4-bromobenzoyl)-4-chlorophenoxy]-N-[2-methyl-4-(1-oxo-1lambda~4~,4-thiazinan-4-yl)phenyl]acetamide;

N-[4-(aminosulfonyl)-2-methylphenyl]-2-[2-(2-bromobenzoyl)-4-chlorophenoxy]acetamide;

2-{4-chloro-2-[(5-methyl-3-isoxazolyl)carbonyl]phenoxy}-N-[2-methyl-4-(1-oxo-1lambda~4~,4-thiazinan-4-yl)phenyl]acetamide;

2-[4-chloro-2-(3-fluorobenzoyl)phenoxy]-N-[2-methyl-4-(1-oxo-1lambda~4~,4-thiazinan-4-yl)phenyl]acetamide;

2-[4-chloro-2-(3-chlorobenzoyl)phenoxy]-N-[2-methyl-4-(1-oxo-1lambda~4~,4-thiazinan-4-yl)phenyl]acetamide;

N-[4-(aminosulfonyl)-2-methylphenyl]-2-[4-chloro-2-(3-cyanobenzoyl)phenoxy]acetamide;

N-[4-(aminosulfonyl)-2-methylphenyl]-2-[4-chloro-2-(3-fluorobenzoyl)phenoxy]acetamide;

N-[4-(aminosulfonyl)-2-methylphenyl]-2-[4-chloro-2-(3-chlorobenzoyl)phenoxy]acetamide;

2-{4-chloro-2-[(4-cyano-2-thienyl)carbonyl]phenoxy}-N-[2-methyl-4-(1-oxo-1lambda~4~,4-thiazinan-4-yl)phenyl]acetamide;

N-[4-(aminosulfonyl)-2-methylphenyl]-2-{4-chloro-2-[(4-cyano-2-thienyl)carbonyl]phenoxy}acetamide;

2-{4-chloro-2-[3-(trifluoromethyl)benzoyl]phenoxy}-N-[2-methyl-4-(1-oxo-1lambda~4~,4-thiazinan-4-yl)phenyl]acetamide;

2-[2-(3-bromobenzoyl)-4-chlorophenoxy]-N-[2-methyl-4-(1-oxo-1lambda~4~,4-thiazinan-4-yl)phenyl]acetamide;

2-[4-chloro-2-(3,5-difluorobenzoyl)phenoxy]-N-[2-methyl-4-(1-oxo-1lambda~4~,4-thiazinan-4-yl)phenyl]acetamide;

N-[4-(aminosulfonyl)-2-methylphenyl]-2-[2-(3-bromobenzoyl)-4-chlorophenoxy]acetamide;

2-[4-chloro-2-(3-methylbenzoyl)phenoxy]-N-[2-methyl-4-(1-oxo-1lambda~4~,4-thiazinan-4-yl)phenyl]acetamide;

2-[4-chloro-2-(3-cyanobenzoyl)phenoxy]-N-(5-methyl-1H-indazol-6-yl)acetamide;

N-[4-(aminosulfonyl)-2-methylphenyl]-2-[4-chloro-2-(3-pyridinylcarbonyl)phenoxy]acetamide;

2-[4-chloro-2-(3-cyanobenzoyl)phenoxy]-N-[2-methyl-4-[3-(1-pyrrolidinyl)propoxy]phenyl]acetamide;

N-[4-(aminosulfonyl)-2-methylphenyl]-2-{4-chloro-2-[(1-methyl-1H-imidazol-2-yl)carbonyl]phenoxy}acetamide;

Serial No. 10/070,084
Docket No. PU3517USw
Reply to Office Action of February 17, 2004

N-[4-(aminosulfonyl)-2-methylphenyl]-2-[4-chloro-2-(1,3-thiazol-2-ylcarbonyl)phenoxy]acetamide;

2-[4-chloro-2-(3,5-difluorobenzoyl)phenoxy]-N-(2-methyl-4-[3-(1-pyrrolidinyl)propoxy]phenyl)acetamide;

N-[4-(aminosulfonyl)-2-methylphenyl]-2-[4-chloro-2-(3,5-difluorobenzoyl)phenoxy]acetamide;

2-[4-chloro-2-[3-fluoro-5-(trifluoromethyl)benzoyl]phenoxy]-N-[2-methyl-4-(1-oxo-1lambda~4~,4-thiazinan-4-yl)phenyl]acetamide

N-(1,3-benzothiazol-6-yl)-2-(2-benzoyl-4-chlorophenoxy)acetamide

2-(4-chloro-2-{3-[(trifluoromethyl)sulfanyl]benzoyl}phenoxy)-N-[2-methyl-4-(1-oxo-1lambda~4~,4-thiazinan-4-yl)phenyl]acetamide

2-[4-chloro-2-(3-ethynylbenzoyl)phenoxy]-N-[2-methyl-4-(1-oxo-1lambda~4~,4-thiazinan-4-yl)phenyl]acetamide;

2-[4-chloro-2-(3,5-dichlorobenzoyl)phenoxy]-N-[2-methyl-4-(1-oxo-1lambda~4~,4-thiazinan-4-yl)phenyl]acetamide;

N-[4-(aminosulfonyl)-2-methylphenyl]-2-[4-chloro-2-(3,5-dichlorobenzoyl)phenoxy]acetamide;

N-[4-(aminosulfonyl)-2-methylphenyl]-2-[4-chloro-2-[3-fluoro-5-(trifluoromethyl)benzoyl]phenoxy]acetamide;

N-(1,3-benzothiazol-6-yl)-2-[4-chloro-2-(3,5-difluorobenzoyl)phenoxy]acetamide

2-[4-chloro-2-(3-cyanobenzoyl)phenoxy]-N-(2-methyl-1,3-benzothiazol-5-yl)acetamide

N-[4-(aminosulfonyl)-2-methylphenyl]-2-[4-chloro-2-{3-[(trifluoromethyl)sulfanyl]benzoyl}phenoxy]acetamide;

N-[4-(aminosulfonyl)-2-methylphenyl]-2-[4-chloro-2-(3-ethynylbenzoyl)phenoxy]acetamide;

2-(2-benzoyl-4-chlorophenoxy)-N-[4-(methylsulfonyl)phenyl]acetamide;

N-[4-(aminosulfonyl)-2-methylphenyl]-2-[4-chloro-2-[3-(2-cyclopentylethynyl)benzoyl]phenoxy]acetamide;

2-[4-chloro-2-[3-fluoro-5-(trifluoromethyl)benzoyl]phenoxy]-N-(5-methyl-1H-indazol-6-yl)acetamide;

2-[4-chloro-2-(3,5-dichlorobenzoyl)phenoxy]-N-(5-methyl-1H-indazol-6-yl)acetamide;

Serial No. 10/070,084
Docket No. P1J3517USw
Reply to Office Action of February 17, 2004

N-[4-(aminosulfonyl)-2-methylphenyl]-2-[4-chloro-2-[3-(2-phenylethynyl)benzoyl]phenoxy]acetamide;
2-[4-chloro-2-(3,5-difluorobenzoyl)phenoxy]-N-(5-methyl-1H-indazol-6-yl)acetamide;
2-[4-chloro-2-(3,5-difluorobenzoyl)phenoxy]-N-[2-methyl-4-(methylsulfonyl)phenyl]acetamide;
N-(1,2-benzisothiazol-5-yl)-2-[4-chloro-2-(3-cyanobenzoyl)phenoxy]acetamide;
2-[4-chloro-2-(3,5-dichlorobenzoyl)phenoxy]-N-(5-methyl-1H-benzimidazol-6-yl)acetamide;
2-[4-chloro-2-(3,5-difluorobenzoyl)phenoxy]-N-(5-methyl-1H-benzimidazol-6-yl)acetamide;
2-[4-chloro-2-[3-fluoro-5-(trifluoromethyl)benzoyl]phenoxy]-N-(5-methyl-1H-benzimidazol-6-yl)acetamide;
2-[4-chloro-2-(3,5-difluorobenzoyl)phenoxy]-1-(2,3-dihydro-1H-indol-1-yl)-1-ethanone;
2-[4-chloro-2-(3-cyanobenzoyl)phenoxy]-N-[2-methyl-4-(methylsulfonyl)phenyl]acetamide;
2-[4-chloro-2-(3-ethynylbenzoyl)phenoxy]-N-[2-methyl-4-(methylsulfonyl)phenyl]acetamide;
N-[4-[3-(aminosulfonyl)propoxy]-2-methylphenyl]-2-[4-chloro-2-(3,5-difluorobenzoyl)phenoxy]acetamide;
2-[2-[3,5-bis(trifluoromethyl)benzoyl]-4-chlorophenoxy]-N-(5-methyl-1H-benzimidazol-6-yl)acetamide;
2-[2-[(5-bromo-3-pyridinyl)carbonyl]-4-chlorophenoxy]-N-(5-methyl-1H-benzimidazol-6-yl)acetamide;
2-[4-chloro-2-[3-fluoro-5-(trifluoromethyl)benzoyl]phenoxy]-N-(6-methyl-1,3-benzothiazol-5-yl)acetamide;
N-[4-[3-(aminosulfonyl)propoxy]-2-methylphenyl]-2-[4-chloro-2-[3-fluoro-5-(trifluoromethyl)benzoyl]phenoxy]acetamide;
N-[4-(aminosulfonyl)-2-methylphenyl]-2-[4-chloro-2-[3-(trifluoromethyl)sulfonyl]benzoyl]phenoxy]acetamide;
2-[4-chloro-2-(3,5-difluorobenzoyl)phenoxy]-N-[4-(1,3-thiazol-2-yl)phenyl]acetamide
2-[4-chloro-2-(3,5-difluorobenzoyl)phenoxy]-N-[4-(1,3-oxazol-2-yl)phenyl]acetamide
2-[4-chloro-2-(3,5-difluorobenzoyl)phenoxy]-N-[4-[(3-hydroxypropyl)sulfonyl]-2-methylphenyl]acetamide;
2-[4-chloro-2-[3-fluoro-5-(trifluoromethyl)benzoyl]phenoxy]-N-(2-methyl-4-[(methylamino)sulfonyl]propoxy)phenyl]acetamide;

Serial No. 10/070,084
Docket No. PU3517USw
Reply to Office Action of February 17, 2004

2-[4-chloro-2-[3-fluoro-5-(trifluoromethyl)benzoyl]phenoxy]-N-(4-(3-[(dimethylamino)sulfonyl]propoxy)-2-methylphenyl)acetamide;

N-[4-(aminosulfonyl)-2-methylphenyl]-2-[2-[(5-bromo-3-pyridinyl)carbonyl]-4-chlorophenoxy]acetamide;

2-[4-chloro-2-[3-fluoro-5-(trifluoromethyl)benzoyl]phenoxy]-N-[4-[3-(1H-imidazol-1-yl)propoxy]-2-methylphenyl]acetamide;

2-[4-chloro-2-[3-fluoro-5-(trifluoromethyl)benzoyl]phenoxy]-N-[2-methyl-4-[(E)-4-(1-pyrrolidinyl)-1-but enyl]phenyl]acetamide;

N-[4-(aminosulfonyl)-2-methylphenyl]-2-[4-chloro-2-(3-cyano-5-fluorobenzoyl)phenoxy]acetamide;

N-[4-(aminosulfonyl)-2-methylphenyl]-2-[4-chloro-2-(3-cyano-5-methylbenzoyl)phenoxy]acetamide;

N-[6-(aminosulfonyl)-4-methyl-3-pyridinyl]-2-[4-chloro-2-(3-cyano-5-methylbenzoyl)phenoxy]acetamide;

N-[4-(aminosulfonyl)-2-methylphenyl]-2-[4-chloro-2-(3-chloro-5-cyanobenzoyl)phenoxy]acetamide;

N-[4-(aminosulfonyl)-2-methylphenyl]-2-[4-chloro-2-(3,5-dimethylbenzoyl)phenoxy]acetamide;

N-[4-(aminosulfonyl)-2-methylphenyl]-2-[4-chloro-2-(3-cyano-5-ethylbenzoyl)phenoxy]acetamide;

2-[4-chloro-2-(3-cyano-5-methylbenzoyl)phenoxy]-N-[4-[3-(2,5-dihydro-1H-pyrrol-1-yl)propoxy]-2-methylphenyl]acetamide hydrochloride;

N-[4-(aminosulfonyl)-2-methylphenyl]-2-[4-chloro-2-(3-chloro-5-methylbenzoyl)phenoxy]acetamide;

N-[4-(aminosulfonyl)-2-methylphenyl]-2-[4-chloro-2-(3,5-dichlorobenzoyl)phenoxy]acetamide;

N-[4-(aminosulfonyl)-2-methylphenyl]-2-[4-chloro-2-[(6-cyano-2-pyridinyl)carbonyl]phenoxy]acetamide;

N-[6-(aminosulfonyl)-2-methyl-3-pyridinyl]-2-[4-chloro-2-(3-cyano-5-methylbenzoyl)phenoxy]acetamide;

N-[4-(aminosulfonyl)-2-methylphenyl]-2-[4-chloro-2-(3,5-dicyanobenzoyl)phenoxy]acetamide;

Serial No. 10/070,084
Docket No. PU3517USw
Reply to Office Action of February 17, 2004

N-[4-(aminosulfonyl)-2-methylphenyl]-2-[4-chloro-2-[3-cyano-5-(trifluoromethyl)benzoyl]phenoxy]acetamide;

and pharmaceutically acceptable derivative salts thereof.

Claim 24 (canceled)

Claim 25 (currently amended) A compound selected from the group consisting of:

N-[4-(aminosulfonyl)-2-methylphenyl]-2-[4-chloro-2-(3-cyanobenzoyl)phenoxy]acetamide;

N-[4-(aminosulfonyl)-2-methylphenyl]-2-[4-chloro-2-(3-fluoro-5-(trifluoromethyl)benzoyl)phenoxy]acetamide;

N-{4-[3-(aminosulfonyl)propoxy]-2-methylphenyl}-2-[4-chloro-2-[3-fluoro-5-(trifluoromethyl)benzoyl]phenoxy]acetamide;

N-[4-(aminosulfonyl)-2-methylphenyl]-2-[4-chloro-2-(3-cyano-5-fluorobenzoyl)phenoxy]acetamide;

N-[4-(aminosulfonyl)-2-methylphenyl]-2-[4-chloro-2-(3-cyano-5-methylbenzoyl)phenoxy]acetamide;

N-[6-(aminosulfonyl)-4-methyl-3-pyridinyl]-2-[4-chloro-2-(3-cyano-5-methylbenzoyl)phenoxy]acetamide;

N-[4-(aminosulfonyl)-2-methylphenyl]-2-[4-chloro-2-(3-chloro-5-cyanobenzoyl)phenoxy]acetamide;

N-[4-(aminosulfonyl)-2-methylphenyl]-2-[4-chloro-2-(3,5-dimethylbenzoyl)phenoxy]acetamide;

N-[4-(aminosulfonyl)-2-methylphenyl]-2-[4-chloro-2-(3-cyano-5-ethylbenzoyl)phenoxy]acetamide;

2-[4-chloro-2-(3-cyano-5-methylbenzoyl)phenoxy]-*N*-(4-[3-(2,5-dihydro-1*H*-pyrrol-1-yl)propoxy]-2-methylphenyl)acetamide hydrochloride;

N-[4-(aminosulfonyl)-2-methylphenyl]-2-[4-chloro-2-(3-chloro-5-methylbenzoyl)phenoxy]acetamide;

N-[4-(aminosulfonyl)-2-methylphenyl]-2-[4-chloro-2-(3,5-dichlorobenzoyl)phenoxy]acetamide;

N-[4-(aminosulfonyl)-2-methylphenyl]-2-[4-chloro-2-[(6-cyano-2-pyridinyl)carbonyl]phenoxy]acetamide;

N-[6-(aminosulfonyl)-2-methyl-3-pyridinyl]-2-[4-chloro-2-(3-cyano-5-methylbenzoyl)phenoxy]acetamide;

Serial No. 10/070,084
Docket No. PU3517USw
Reply to Office Action of February 17, 2004

N-[4-(aminosulfonyl)-2-methylphenyl]-2-[4-chloro-2-(3,5-dicyanobenzoyl)phenoxy]acetamide;
and pharmaceutically acceptable derivative salts thereof.

Claim 26 (currently amended) A compound according to claim 4 wherein R¹ is C₆₋₁₄ aryl substituted in the meta position, particularly with halogen and wherein R³ is hydrogen and R⁴ is C₆₋₁₄aryl substituted with C₁₋₈alkyl, in particular methyl.

Claim 27 (canceled)

Claim 28 (currently amended) ~~The method according to claim 27 wherein the viral infection is an~~ A method of treatment of an HIV infection in a mammal comprising administering to said mammal an anti-HIV effective amount of a compound according to claim 2.

Claim 29 (currently amended) A method of inhibiting HIV reverse transcriptase transcriptase comprising administering to a mammal an effective amount of a compound according to any of claim 2.

Claim 30 (previously presented) A method of preventing HIV infection, or of treating HIV infection, comprising administering to a mammal an effective amount of a compound according to claim 2.

Claim 31 (canceled)

Claim 32 (canceled)

Claim 33 (canceled)

Claim 34 (previously presented) A pharmaceutical composition comprising an effective amount of a compound according to claim 2 together with a pharmaceutically acceptable carrier.

Claim 35 (original) A pharmaceutical composition according to claim 34 in the form of a tablet or capsule.

Claim 36 (original) A pharmaceutical composition according to claim 34 in the form of a liquid.

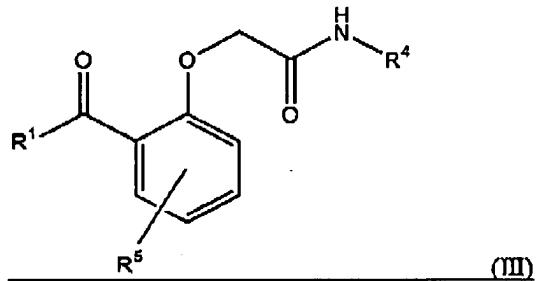
Claim 37 (canceled)

Serial No. 10/070,084
 Docket No. PU3517USw
 Reply to Office Action of February 17, 2004

Claim 38 (canceled)

Claim 39 (canceled)

Claim 40 (currently amended) A compound according to claim 17 of formula (III)



wherein

R¹ is phenyl which is substituted in the *meta* position with one or more substituents selected from the group consisting of halogen, -CF₃, C₁₋₈alkyl, C₁₋₈alkylamino, alkoxy, C₃₋₆cycloalkylC₂₋₆alkenyl, C₆₋₁₄arylC₂₋₆alkenyl, -CN, -NO₂, -NH₂, -SR⁶, -S(O)₂R⁶, -S(O)R⁷, -S(O)₂R⁷, -C(O)R⁷, C₂₋₆alkenyl which may be optionally substituted with a substituent selected from the group consisting of hydroxy, halogen, aryl, and heterocycle, and C₂₋₆alkynyl which may be optionally substituted with a substituent selected from the group consisting of hydroxy, halogen, aryl, C₃₋₆cycloalkyl, and heterocycle;

R² is hydrogen;

R³ is hydrogen;

R⁴ is phenyl substituted in the *ortho* position with a substituent selected from the group consisting of hydroxy, halogen, -CF₃, or C₁₋₈alkyl and substituted at the *para* position with a substituent selected from the group consisting of hydroxy, halogen, -CF₃, C₁₋₈alkyl, hydroxyC₁₋₈alkyl, -CN, -NO₂, C₁₋₈alkylamino, heterocycleC₁₋₈alkyl, -C(O)NH₂, -S(O)R⁷, -S(O)₂R⁷, -C(O)R⁷, -NS(O)₂R⁷, -S(O)₂NR⁸R⁹, -S(O)₂NHR¹¹, -SO₂R¹¹, -OR¹¹, -C(O)R¹¹, -C(O)NR¹¹, -C(O)OR¹¹, -NR¹¹, -NC(O)R¹¹, heterocycleC₂₋₆alkenyl, heterocycle which may be optionally substituted with one or more substituents selected from the group consisting of oxo, C₁₋₈alkyl, and C(O)OR¹¹, and C₁₋₈alkyl which may be optionally substituted with one or more substituents selected from the group consisting of -CN and heterocycle, optionally substituted with -C(O)R¹¹;

R⁵ is a substituent in the *para* position relative to X and is selected from the group consisting of halogen, C₁₋₈alkyl, -NO₂, -NH₂, C₁₋₈alkylamino, CF₃, or alkoxy;

Serial No. 10/070,084
Docket No. PU3517USw
Reply to Office Action of February 17, 2004

R⁶ is C₁₋₈alkyl, optionally substituted with one or more substituents selected from the group consisting of hydroxy, halogen, -CF₃, aryl, and heterocycle;

R⁷ is C₁₋₈alkyl, optionally substituted with one or more substituents selected from the group consisting of hydroxy, halogen, aryl, C₁₋₆cycloalkyl and heterocycle; -NH₂; or heterocycle;

R⁸ and R⁹ are independently selected from the group consisting of hydrogen; C₁₋₆cycloalkyl; C₁₋₈alkyl optionally substituted with one or more substituents selected from the group consisting of oxo, heterocycle, CN and C₆₋₁₄aryl optionally substituted with alkoxy, C₁₋₈alkylamino, C₁₋₈alkylheterocycle, heterocycle, heterocycleC₁₋₈alkyl, C₃₋₆cycloalkylC₁₋₈alkyl, and C₃₋₆cycloalkyl; or -C(O)NH₂;

R¹¹ is C₁₋₈alkyl, optionally substituted with one or more substituents selected from the group consisting of hydrogen, C₁₋₈alkyl, -S(O)₂NR⁸R⁹, -NR⁸R⁹, and heterocycle, optionally substituted with one or more substituents selected from the group consisting of oxo and C₁₋₈alkyl; or a pharmaceutically acceptable derivative salt thereof.

Claim 41 (canceled)

Claim 42 (canceled)

Claim 43 (currently amended) A compound according to claim 6 wherein R¹ is C₆₋₁₄ aryl substituted in the meta position, particularly with halogen and wherein R³ is hydrogen and R⁴ is C₆₋₁₄aryl substituted with C₁₋₈alkyl, in particular methyl.

Claim 44 (currently amended) A compound according to claim 7 wherein R¹ is C₆₋₁₄ aryl substituted in the meta position, particularly with halogen and wherein R³ is hydrogen and R⁴ is C₆₋₁₄aryl substituted with C₁₋₈alkyl, in particular methyl.

Claim 45 (currently amended) A compound according to claim 17 2 wherein R¹ is C₆₋₁₄ aryl substituted in the meta position, particularly with halogen and wherein R³ is hydrogen and R⁴ is C₆₋₁₄aryl substituted with C₁₋₈alkyl, in particular methyl.

Claim 46 (currently amended) A compound according to claim 18 wherein R¹ is C₆₋₁₄ aryl substituted in the meta position, particularly with halogen and wherein R³ is hydrogen and R⁴ is C₆₋₁₄aryl substituted with C₁₋₈alkyl, in particular methyl.

Serial No. 10/070,084
Docket No. PU3517USw
Reply to Office Action of February 17, 2004

Claim 47 (currently amended) A compound according to claim 19 wherein R¹ is C₆₋₁₄ aryl substituted in the meta position, particularly with halogen and wherein R³ is hydrogen and R⁴ is C₆₋₁₄aryl substituted with C₁₋₈alkyl, in particular methyl.

Claim 48 (currently amended) A method of treatment of a-viral an HIV infection in a mammal comprising administering to said mammal an antivirally effective amount of a compound according to claim 4.

Claim 49 (currently amended) A method of treatment of a-viral an HIV infection in a mammal comprising administering to said mammal an antivirally effective amount of a compound according to claim 23.

Claim 50 (currently amended) A method of inhibiting HIV reverse transcriptase transcriptase comprising administering to a mammal an effective amount of a compound according to claim 4.

Claim 51 (currently amended) A method of inhibiting HIV reverse transcriptase transcriptase comprising administering to a mammal an effective amount of a compound according to claim 23.

Claim 52 (previously presented) A method of preventing HIV infection, or of treating HIV infection, comprising administering to a mammal an effective amount of a compound according to claim 4.

Claim 53 (previously presented) A method of preventing HIV infection, or of treating HIV infection, comprising administering to a mammal an effective amount of a compound according to claim 23.

Claim 54 (previously presented) A pharmaceutical composition comprising an effective amount of a compound according to claim 4 together with a pharmaceutically acceptable carrier.

Serial No. 10/070,084
Docket No. PU3517USw
Reply to Office Action of February 17, 2004

Claim 55 (previously presented) A pharmaceutical composition comprising an effective amount of a compound according to claim 23 together with a pharmaceutically acceptable carrier.

Claim 56 (new) A compound according to claim 7 wherein R⁴ is C₆₋₁₄aryl substituted with methyl.

Claim 57 (new) A compound according to claim 10 wherein X is O.

Claim 58 (new) A compound of formula (I) according to claim 20 wherein R¹ is phenyl which is substituted in the meta position with one or more substituents selected from the group consisting of halogen, -CF₃, C₁₋₈alkyl, and -CN; R⁴ is phenyl substituted with one or more substituents selected from the group consisting of halogen, C₁₋₈alkyl, -CN, -NO₂, -S(O)R⁷, -S(O)₂R⁷, -NS(O)₂R⁷, wherein R⁷ is -NH₂; and R⁵ is halogen; or a pharmaceutically acceptable salt thereof.

Claim 59 (new) A compound of formula (I) according to claim 20 wherein R¹ is phenyl which is substituted in the meta position with one or more substituents selected from the group consisting of halogen, C₁₋₈alkyl, CF₃, -CN; R⁴ is phenyl substituted with one or more substituents selected from the group consisting of C₁₋₈alkyl and S(O)₂NR⁸R⁹, wherein R⁸ and R⁹ are independently selected from the group consisting of hydrogen, C₃₋₆cycloalkyl, C₁₋₈alkyl optionally substituted with one or more substituents selected from the group consisting of oxo, heterocycle, CN and C₆₋₁₄aryl optionally substituted with C₁₋₈alkoxy, C₁₋₈alkylamino, C₁₋₈alkylheterocycle, heterocycleC₁₋₈alkyl, C₃₋₆cycloalkylC₁₋₈alkyl, and C₃₋₆cycloalkyl.

Claim 60 (new) A compound of formula (I) according to claim 20 wherein R¹ is phenyl which is substituted in the meta position with one or more substituents selected from the group consisting of halogen, -CF₃, C₁₋₈alkyl, -CN, C₂₋₆alkenyl which may be optionally substituted with a substituent selected from the group consisting of hydroxy, halogen, aryl, and heterocycle and C₂₋₆alkynyl which may be optionally substituted with a substituent selected from the group consisting of hydroxy, halogen, aryl, C₃₋₆cycloalkyl, and heterocycle; R⁴ is phenyl substituted with one or more substituents selected from the group consisting of C₁₋₈alkyl, -S(O)₂R⁷, -S(O)₂NR⁸R⁹, -OR¹¹, heterocycleC₂₋₆alkenyl, and heterocycle which may be optionally substituted with oxo; and R⁵ is halogen; or a pharmaceutically acceptable salt thereof.

Claim 61 (new) A compound of formula (III) according to claim 40 wherein R¹ is phenyl which is substituted in the meta position with one or more substituents selected from the

Serial No. 10/070,084
Docket No. PU3517USw
Reply to Office Action of February 17, 2004

group consisting of halogen, -CF₃, C₁₋₈alkyl, -CN, -SR⁶, -S(O)₂R⁶; R⁶ is C₁₋₈alkyl, optionally substituted with halogen; R⁷ is C₁₋₈ alkyl, optionally substituted with one or more substituents selected from the group consisting of hydroxy, -NH₂, or heterocycle; R⁴ is phenyl substituted with one or more substituents selected from the group consisting of hydroxy, -CF₃, C₁₋₈alkyl, hydroxyC₁₋₈alkyl, -CN, -NO₂, -C(O)NH₂, -S(O)₂R⁷, -S(O)₂NR⁸R⁹, -OR¹¹, -C(O)NR¹¹, -C(O)OR¹¹, -NR¹¹, -NC(O)R¹¹, heterocycle which may be optionally substituted with one or more substituents selected from the group consisting of oxo and C₁₋₈alkyl; R⁸ and R⁹ are the same or different and are selected from the group consisting of hydrogen, C₁₋₈alkyl, C₁₋₈alkylheterocycle, heterocycle, and C₃₋₆cycloalkyl; R¹⁰ is C₁₋₈alkyl; R¹¹ is C₁₋₈alkyl, optionally substituted with -S(O)₂NR⁸R⁹; and R⁵ is halogen or -NO₂; or a pharmaceutically acceptable salt thereof.

Claim 62 (new) A compound of formula (I) according to claim 60 wherein R¹ is phenyl which is substituted in the meta position with one or more substituents selected from the group consisting of halogen, -CF₃, C₁₋₈alkyl, and -CN; R⁴ is phenyl substituted with one or more substituents selected from the group consisting of halogen, C₁₋₈alkyl, -CN, -NO₂, -S(O)R⁷, -S(O)₂R⁷, -NS(O)₂R⁷, wherein R⁷ is -NH₂; and R⁵ is halogen; or a pharmaceutically acceptable salt thereof.